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As an industry supplier to medical technology companies, GEMÜ Switzerland produces customised polymer solutions for surgical instruments, medical devices and ready-to-sterilise (RTS) components for the pharmaceutical industry.

The company's spectrum of services extends from engineering, injection-mould tooling and clean room injection-moulding through to the provision of fully assembled, tested and packaged plastic system solutions.

GEMÜ has more than 30 years of experience in plastic production, and injection moulding of advanced polymers such as PEEK, PFA and PVDF is one of its core competencies. Its range is completed by a raft of proprietary products for medical applications.

In September 2012, GEMÜ opened a new clean room plant with 2,800m² of clean rooms classified as ISO Class 8 in operation. The factory was designed from scratch and was built as a greenfield project. This allowed the clean room production facilities to be built according to the latest findings and the processes to be optimised accordingly.

produce RTS components for the pharmaceutical industry.

In terms of labware, GEMÜ can comply with requirements such as being RNase and DNase-free, and fulfils important specifications of the biotech industry. These requirements were implemented in a 1.5ml reaction vessel, sold by GEMÜ under the name of FlipTube.

Further information
GEMÜ
www.gemu.ch

Clean-room production and contract manufacturing of medical devices



Endoscopy accessories by H + H Maslanka Chirurgische Instrumente.

H + H Maslanka Chirurgische Instrumente was founded in 1974. With over 40 years' experience in the field of medical technology, the company is synonymous with high-quality products and developments across the endoscopy sector. Its clients

include medical technology companies, pharmaceutical firms, hospitals and physicians. Maslanka offers customer-specific designs and production facilities based in Germany.

H + H Maslanka Chirurgische Instrumente provides:

- gastroenterology, urology, cardiology and endoscopy products
- special products for laparoscopy
- service and manufacturing support
- ISO 7-class cleanrooms
- compliance to ISO 13485.

Further information
H + H Maslanka Chirurgische Instrumente
www.maslanka.dem

Additive manufacturing of small, complex metal parts



Components are built layer by layer in a 3D printer using metal powder and inkjet.

Höganäs Digital Metal system is based on precision inkjet printing on a powder bed. Components are materialised in a 3D printer that builds the object layer by layer, using metal powder and precision inkjet. Once complete, the object is sintered for strength. The result is a metal component or part with high resolution and tolerance.

The Digital Metal technology, at present, is most suitable for small components of complex shape for prototype or series production for various market segments, including non-critical components in the aerospace and medical sectors.

Today, Digital Metal predominantly produces parts or components in stainless steel. However, other materials such as titanium, silver and copper are close to commercialisation.

Surface roughness after sintering is normally Ra6 but can be easily improved with traditional surface treatment processes to Ra3 or better. Digital Metal printing is done at room temperature, without partial melting of the powder particles, which occurs with competing laser or electron beam technology. This provides high tolerances, a high level of surface finish and very high levels of detail.

The technology offers tolerances down to 50µm, with holes and wall thicknesses currently down to 200µm. Cleaning of printed components is facilitated by the formation occurring at room temperature. Furthermore, there is, in principal, no need to build a support structure during printing because the components are supported by the powder bed in the build box.

The whole volume of the build box can therefore be maximised, and the components can be packed tightly because no account of thermal conductivity needs to be taken.

The process is flexible since forming and sintering is done in separate steps with different equipment, which means that the forming step can be maximised.

Further information
Höganäs
www.hoganas.com

Quality and service for plastics

HTI Plastics is a world leader in injection-moulded plastics and understands that you are looking for a company that is knowledgeable within your industry and provides excellent service, high standards and quality products. That is exactly what you will get by working with HTI.

The process of producing your pharmaceutical or medical device product at HTI has five basic steps. It typically starts with a request for quotation before moving on to the mould and part-design process, followed